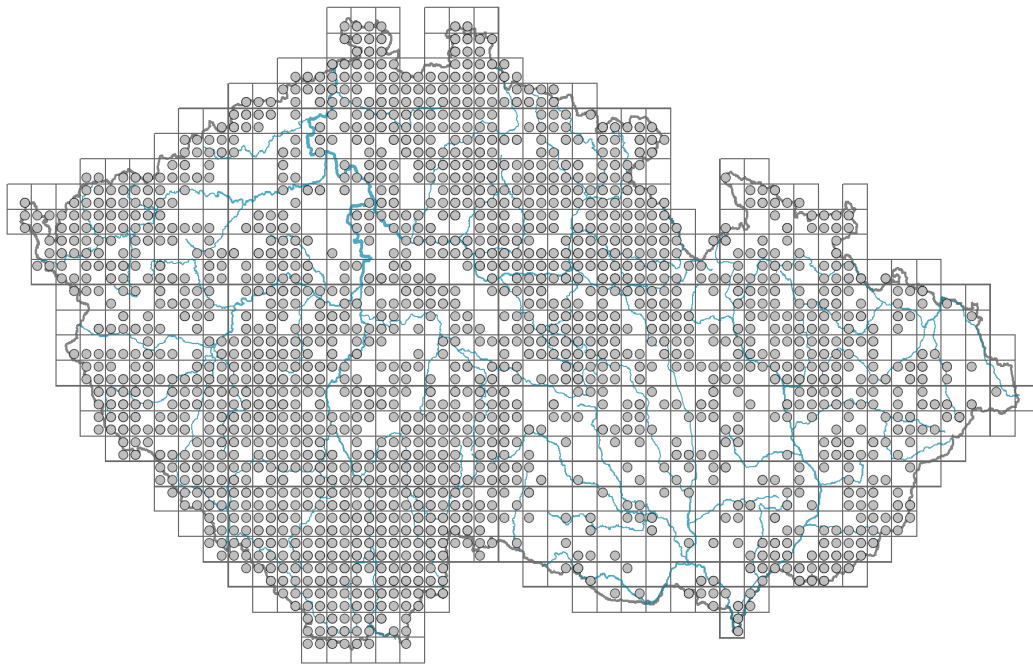


# *Molinia caerulea* agg.

## Distribution



### Map info

● revised records

○ unrevised records

On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.

## Habitus and growth type

Height [m]: **0.15-2.5**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CS - competitor/stress-tolerator**

Life strategy (Pierce method based on leaf traits): **S/CSR**

Life strategy (Pierce method, C-score): **22.6 %**

Life strategy (Pierce method, S-score): **54.8 %**

Life strategy (Pierce method, R-score): **22.7 %**



## Leaf

Leaf presence and metamorphosis: **leaves present, not modified**

Leaf arrangement (phyllotaxis): **alternate**

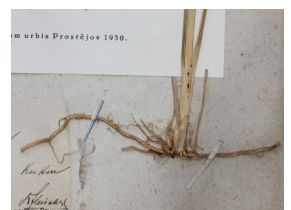
Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, helomorphic**



## Flower

Flowering period [month]: **June-September**

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **green**

Perianth type: **reduced**

Perianth fusion: **reduced**

Inflorescence type: **panicula e spiculis composita**

Dicliny: **synoecious**

Generative reproduction type: **allogamy self-incompatibility**

Pollination syndrome: **wind-pollination**

## Fruit, seed and dispersal

Fruit type: **dry fruit - caryopsis**

Fruit colour: **brown**

Reproduction type: **mostly by seed/spores, rarely vegetatively**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **myrmecochorous, non-myrmecochorous (a)**

## Belowground organs and clonality

Shoot metamorphosis: **rhizome, shoot tuber**

Storage organ: **rhizome, shoot tuber, tuft**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **monocyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **absent**

Persistence of the clonal growth organ [year]: **3.8**

Number of clonal offspring: **1.4**

Lateral spreading distance by clonal growth [m]: **0.02**

## Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **13**

Number of buds per shoot at a depth greater than 10 cm (root buds excluded):

Size of the belowground bud bank (root buds excluded): **16**

Depth of the belowground bud bank (root buds excluded) [cm]: **4**

Number of buds per shoot at the soil surface (root buds included): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **13**

Number of buds per shoot at a depth greater than 10 cm (root buds included):

Size of the belowground bud bank (root buds included): **16**

Depth of the belowground bud bank (root buds included) [cm]: **4**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



## Karyology

Chromosome number (2n): **18, 36, 54, 72, 90, 108**

Ploidy level (x): **2, 4, 6, 8, 10, 12**

2C genome size [Mbp]: **5659.16**

1Cx monoploid genome size [Mbp]: **719.69**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**

Temperature indicator value: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **7x - humidity indicator, focus on well moistened, but not wet soils (generalist)**

Reaction indicator value: **5x - indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions (generalist)**

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

Salinity indicator value: **1 - salt tolerant, mostly on low-salt to salt-free soils, but occasionally on slightly salty soils**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.44**

Herb layer disturbance frequency indicator value: **-0.96**

Whole-community disturbance severity indicator value: **0.2**

Herb layer disturbance severity indicator value: **0.19**

Whole-community structure based disturbance indicator value: **0.34**

Herb layer structure-based disturbance indicator value: **0.46**

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1B Siliceous cliffs and block fields: **1 - rare occurrence**

2 Alpine and subalpine grasslands

2A Alpine grasslands on siliceous bedrock: **2 - optimum**

2B Subalpine tall-forb and tall-grass vegetation: **2 - optimum**

3 Aquatic vegetation

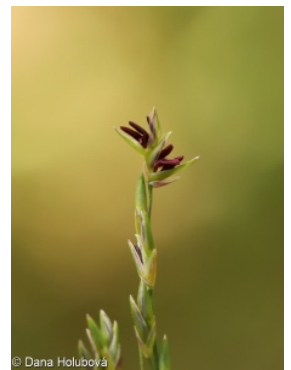
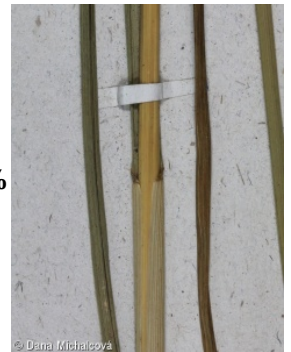
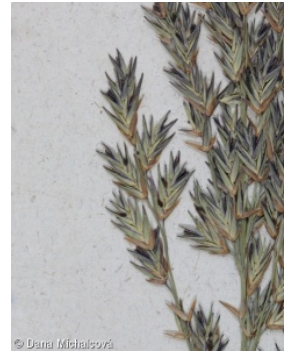
3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4E Reed vegetation of brooks: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**





4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**

5 Vegetation of springs and mires

5C Alpine and subalpine soft-water springs: **2 - optimum**

5D Calcareous fens: **3 - dominant**

5E Acidic moss-rich fens and peatland meadows: **2 - optimum**

5F Transitional mires: **2 - optimum**

5G Raised bogs: **2 - optimum**

5H Wet peat soils and bog hollows: **2 - optimum**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 - rare occurrence**

6C Pastures and park grasslands: **1 - rare occurrence**

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

6E Wet Cirsium meadows: **1 - rare occurrence**

6F Intermittently wet Molinia meadows: **3 - dominant**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

7B Submontane Nardus grasslands: **2 - optimum**

8 Dry grasslands

8D Broad-leaved dry grasslands: **1 - rare occurrence**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**

10 Saline vegetation

10I Inland saline meadows: **1 - rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

11D Subalpine acidophilous Pinus mugo scrub: **1 - rare occurrence**

11H Subalpine deciduous scrub: **2 - optimum**

11I Willow carrs: **1 - rare occurrence**

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

12A Alder carrs: **2 - optimum**

12B Alluvial forests: **1 - rare occurrence**

12C Oak-hornbeam forests: **1 - rare occurrence**

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**

12I Sub-continental thermophilous oak forests: **2 - optimum**

12K Acidophilous oak forests: **3 - dominant**

12L Boreo-continental pine forests: **1 - rare occurrence**

12O Peri-Alpidic pine forests: **1 - rare occurrence**

12P Peatland pine forests: **2 - optimum**

12Q Peatland birch forests: **3 - dominant**

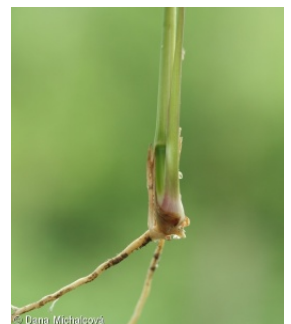
12R Acidophilous spruce forests: **1 - rare occurrence**

12S Basiphilous spruce forests: **1 - rare occurrence**

12V Spruce plantations: **1 - rare occurrence**

12W Pine and larch plantations: **1 - rare occurrence**

13 Anthropogenic vegetation



13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of alliances: [TDD \*Molinion caeruleae\*](#)

Diagnostic taxon of associations: [LDA04 \*Holco mollis-Quercetum roboris\*](#), [LFD01 \*Vaccinio uliginosi-Betuletum pubescentis\*](#), [RBA05 \*Junco subnodulosi-Schoenetum nigricantis\*](#), [TDD01 \*Molinietum caeruleae\*](#), [TDD02 \*Junco effusi-Molinietum caeruleae\*](#)

Constant taxon

Constant taxon of alliances: [LFD \*Vaccinio uliginosi-Pinion sylvestris\*](#), [TDD \*Molinion caeruleae\*](#)

Constant taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LAB01 \*Salicetum auritae\*](#), [LDA04 \*Holco mollis-Quercetum roboris\*](#), [LFD01 \*Vaccinio uliginosi-Betuletum pubescentis\*](#), [RBA01 \*Valeriano dioicae-Caricetum davallianae\*](#), [RBA05 \*Junco subnodulosi-Schoenetum nigricantis\*](#), [TDD01 \*Molinietum caeruleae\*](#), [TDD02 \*Junco effusi-Molinietum caeruleae\*](#)

Dominant taxon

Dominant taxon of associations: [LAA01 \*Thelypterido palustris-Alnetum glutinosae\*](#), [LCB02 \*Carici fritschii-Quercetum roboris\*](#), [LDA04 \*Holco mollis-Quercetum roboris\*](#), [LFD01 \*Vaccinio uliginosi-Betuletum pubescentis\*](#), [RBA01 \*Valeriano dioicae-Caricetum davallianae\*](#), [RBA05 \*Junco subnodulosi-Schoenetum nigricantis\*](#), [TDD01 \*Molinietum caeruleae\*](#), [TDD02 \*Junco effusi-Molinietum caeruleae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4**

Ecological specialization index for non-forest vegetation: **4.4**

Ecological specialization index for forest vegetation: **4**

## Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional**

Floristic region: **Europe**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 607

taxon.data.freq\_in\_quad: 1659

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **43.1 %**

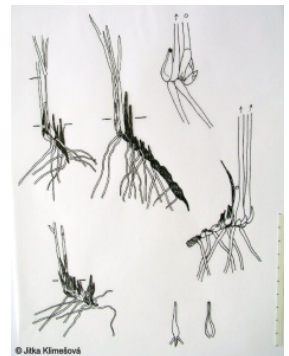
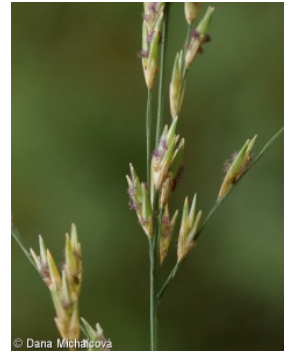
Occurrence frequency in vegetation plots with a cover above 25%: **22.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **9.8 %**

Mean percentage cover in vegetation plots: **16 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic



Number of narrow habitats in which the taxon occurs: **45**

Number of narrow habitats in which the taxon has its optimum: **16**

Number of broad habitats in which the taxon occurs: **13**

Number of broad habitats in which the taxon has its optimum: **6**